

Claims.

1. A toothbrush head, connected to or connectable to a toothbrush grip handle to define a head-handle length direction and a width direction perpendicular to the longitudinal direction, comprising a flexible bristle carrier on which bristles are mounted and having a base part closest to the toothbrush handle when connected and a longitudinally opposite tip part, and a support which supports the carrier;
characterised in that the support supports the carrier at the base part and at the tip part, leaving the carrier unsupported thereby in a region longitudinally between these parts, the carrier being flexible such that it can deform under the forces of toothbrushing so that both its longitudinal and widthways sections become distorted.
2. A toothbrush head according to claim 1 characterised in that longitudinally between the base and tip parts the support arches away from the back face of the carrier in a direction perpendicular to the longitudinal direction, in a curved or angular arched shape
3. A toothbrush head according to claim 1 or 2 characterised in that the side surface of the carrier longitudinally between the supported parts of the carrier is unsupported by the support.
4. A toothbrush head according to any one of claims 1, 2 or 3 characterised in that the support is capable of resilient bending deformation so that under the forces encountered in toothbrushing the tip part of the carrier can move resiliently to follow an arc in a plane perpendicular to the width direction.
5. A toothbrush head according to any one of the preceding claims characterised in that under the forces encountered in toothbrushing the support can perform resilient twisting deformation about a generally longitudinal twist axis.
6. A toothbrush head according to claim 4 or 5 characterised by a flexible support comprising longitudinally distanced support parts to respectively support the base part and tip part of the carrier, integrally longitudinally linked by one or more flexible plastics material link.

7. A toothbrush head according to claim 6 characterised by a link in the form of a plastics material rib extending generally longitudinally.
- 5 8. A toothbrush head according to claim 7 characterised by plural links disposed on widthways opposite sides of the central longitudinal axis of the head.
9. A toothbrush head according to claim 8 characterised by two links which converge in the handle-toward-head direction.
- 10 10. A toothbrush head according to any one of the preceding claims characterised in that the flexible bristle carrier comprises a pad of an elastic material.
- 15 11. A toothbrush head according to claim 10 characterised in that the elastic material is an elastomer material.
- 20 12. A toothbrush head according to claim 11 characterised in that bristles disposed in tufts are fixed into the elastomer pad with their ends fused into a thickened mass and embedded in an elastomer bristle carrier, and pass through plastics material rings embedded in the elastomer pad
- 25 13. A toothbrush head according to claim 12 characterised in that said rings are in the form of open-ended tubes which surround tufts of bristles which extend through them, and which are set in the elastomer material, and which allow movement of the tufts of bristles reciprocally along the bristle direction.
14. A toothbrush head according to claim 10 characterised in that the elastic material is a visco-elastic material
- 30 15. A toothbrush head according to claim 14 characterised in that the visco-elastic material is a polyurethane gel.
16. A toothbrush head, connected to or connectable to a toothbrush grip handle, having bristles projecting therefrom in a bristle direction, each bristle having an end

proximate to the head and an end distanced from the head, the head incorporating a mass of a gel material or a mass of a polyurethane material, preferably a polyurethane gel material, and at least a part of a bristle adjacent its end proximate to the head being embedded in the mass of gel material, comprising a frame of a hard plastics material by which the mass is supported, characterised in that the mass is in the form of a pad having a bristle surface, is supported by the frame at a support point adjacent to the tip end and at a support point adjacent to the base end, but is unsupported longitudinally between these two longitudinally spaced support points.

10 17. A toothbrush head according to any one of claims 1 to 9 characterised in that the bristle carrier comprises plural plastics material segments which are flexibly linked so as to allow the carrier to be flexible such that it can deform under the forces of toothbrushing so that both its longitudinal and widthways sections become distorted.

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18. A toothbrush head according to claim 17 characterised in that the carrier comprises segments which are sequentially longitudinally arranged

19. A toothbrush head according to claim 17 or 18 characterised in that the carrier
20 comprises segments which are sequentially longitudinally arranged and sequentially widthways arranged.

20. A toothbrush characterised by a head according to any one of the preceding claims, connected to a handle by which the toothbrush may be held during use.